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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/091,337	Applicant(s) MIZUNO, YUSUKE	
	Examiner Timothy R. Newlin	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☒ Claim(s) 9 and 44 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objections***

2. Claim 9 is objected to under 37 CFR 1.75(c) as being in improper form because it depends from claims 1 through 8. See MPEP § 608.01(n). Accordingly, the claim has not been further treated on the merits.
3. Claim 44 is objected to because it uses the term "pre-per-view," which appears to be a misspelling of "pay-per-view." Please correct this term, unless this usage is intentional, in which case it should be defined in the specification.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 3 is rejected under 35 U.S.C. 101 because it claims a "program", i.e. a data structure not embodied in computer-readable media. As a computer listing per se, Claim 3 is nonstatutory.

***Claim Rejections - 35 USC § 102***

6. Claims 1-25, 27-30, ~~36~~<sup>36A</sup>-41, and 43-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Russo, U.S. Patent No. 6,025,868.

7. Regarding claim 1, Russo discloses a storage-type receiving device comprising:

a receiving part for receiving a content being transmitted **[tuner 104, Fig. 2; paras. 19, 29]** ;

a storage part for storing a content **[storage 110, Fig. 2; paras. 15, 32, 46]**;

a control part **[central controller 150, Fig. 2; para. 31]**; and

a restoring part for restoring the content received with the receiving part and/or the content stored in the storage part in accordance with control of the control part **[the compressor/decompressor 112 restores content from storage based on controller 150, Fig. 2; paras. 33, 34]**;

wherein the control part at least controls the restoring part, and the control part comprises

a storage control portion for controlling the restoring part so that the restoring part previously reads out part of each content in a plurality of contents alone as a partial content and outputs the partial content to the storage part **[system may make available different storage areas for program and preview information, para. 46]**, and

a playback control portion which reads out the partial content stored in the storage part and playback and outputs the partial content **[record/play controller 10, Fig. 1; paras. 21, 44]**.

8. Regarding claim 2, Russo discloses a storage control device, performs control for storing a content received with a receiving part into a storage part, for reading out the content stored in the storage part, for playback of the content stored in the storage part, and for outputting the content, the device comprising:

a control part **[central controller 150, Fig. 2; para. 31]** including a storage control portion for controlling the restoring part so that the restoring part reads out a part of each content in a plurality of contents alone as a partial contents and outputs the partial content to the storage part **[a subset of program contents may be downloaded to storage, para. 40; previews of stored content may be output, para. 44]**, and

a playback control **[control 10, Fig. 1]** portion which reads out the partial content stored in the storage part at request and playback and outputs the partial content **[previews are restored from memory; paras. 44, 46]**.

9. Regarding claim 3, Russo discloses a program for controlling **[central controller 150, Fig. 2; para. 31]** a receiving device which receives a content being transmitted and stores the content, and restores and outputs the stored content **[the**

**compressor/decompressor 112 restores content from storage based on controller 150, Fig. 2; paras. 33, 34], and**

the program further realizes the function of a control part including a storage control portion for controlling so that the restoring part reads out part of each content in a plurality of contents alone as a partial content and outputs the partial content, and a playback control portion which reads out the partial content and playback and outputs the partial content **[a subset of program contents may be downloaded to storage, para. 40; previews of stored data may be output, para. 44].**

10. Regarding claim 36, Russo discloses a receiving device capable of viewing a part of a content as a partial content, the device comprising:

a control part conducts one of recording history of viewing the partial contents and of viewing the content, and outputting the history to outside thereof. **[system will list pre-recorded contents and viewing history, para. 25; user may review titles of stored content, para. 44; selection history is outputted to program provider, para. 44].**

11. Regarding claim 37, Russo discloses a receiving device which receives and stores a content being transmitted, and restores the stored content and outputs the restored content **[the compressor/decompressor 112 restores content from storage based on controller 150, Fig. 2; paras. 33, 34],** the device comprising:

a control part which controls so that one of recording a condition for storing the partial content specified by a user and outputting such a condition to outside thereof is conducted while selectively storing a partial content having a condition comply with a condition provided by a user **[contents may be stored based on the condition of user-selected category, para. 40, or triggered on payment, para 41]**.

12. Regarding claim 41, Russo discloses a method of displaying an electronic program guide on a receiving device, the method comprising a step of indicating a display by which a program is pre-viewable to each of pay programs **[paras. 40, 44]**.

13. Regarding claim 43, Russo discloses a receiving method comprising the steps of:  
previously storing preview of a content transmitted by a transmission device into a receiving device **[program content previously stored, para. 44]**, and  
reproducing the stored preview whenever a playback of preview is required **[previews are restored from memory; paras. 44, 46]**.

14. Regarding claim 44, Russo discloses a method for managing content broadcasting, the method comprising the steps of:  
at a receiving device **[tuner 104, Fig. 2; paras. 19, 29]**;  
previously storing transmitted by a transmission device into preview of a content **[program content previously stored, para. 44]**,

determining whether or not a pay-per-view content is currently airing in accordance with information on programs when a user provides a command for subscription according to the stored preview **[paras. 40, 44]**, and

transmitting to the transmission device the subscription command of the pay-per-view content when the content is not on-aired, at the transmission device

**[transmission device receives subscription commands, para. 42, 43];**

receiving commands for subscription from a plurality of receiving devices **[groups of subscribers, para. 20]**, and

determining whether or not rerun of the pre-per-view content is carried out according to the number of the subscription commands **[content may be repeated or controlled based on subscriber commands, paras. 26, 45]**.

15. Claim 4 is rejected under §102(b) on the same basis as the program steps in claim 3, and is also rejected above under §101.

16. Regarding claim 5, Russo discloses a receiving device wherein the playback control portion selects and playbacks a desired partial content out of a plurality of partial contents being stored in accordance with a command for playback the partial content from a user **[a subset of program contents may be downloaded to storage, para. 40; previews of stored data may be output, para. 44]**.



17. Regarding claim 6, Russo discloses a receiving device wherein the control part conducts one of recording information for specifying the partial content selected by the playback command provided by the user and outputting such information to outside thereof **[transmission device receives subscription commands, para. 42, 43]**.

18. Regarding claim 7, Russo discloses a receiving device wherein the playback control portion selects and playbacks a desired partial content out of a plurality of partial contents being stored **[previews are restored from memory; paras. 44, 46]** while the control part performs control in response to another command differ from the playback command **[controller 150 causes compressor/decompressor 112 to operate in storage mode while playback is occurring, Fig. 2; paras. 33, 34]**.

19. Regarding claim 8, Russo discloses a receiving device wherein the command differ from the playback command is a command for displaying a program table created in accordance with a category search, and wherein the playback control portion selects and searches a partial content belonging to the category to be searched as a desired partial content under the different command **[category search, para. 40]**.

20. Regarding claim 10, Russo discloses a receiving device wherein the control part controls the restoring part so that the restoring part previously reads out part of each content in a plurality of contents alone as a partial content and outputs the partial content to the storage part **[the compressor/decompressor 112 restores content**

**from storage based on controller 150, Fig. 2; paras. 33, 34; system may make available different storage areas for program and preview information, para. 46]**

in parallel to a process for restoring a signal from the receiving part into a content with the restoring part and output it to the storing part **[controller 150 causes compressor/decompressor 112 to operate in storage mode while playback is occurring, Fig. 2; paras. 33, 34].**

21. Regarding claim 11, Russo discloses a device wherein the storage control portion controls so that only a partial content in a content, which complies with a condition for storing the partial content specified by a user is output to the storage part **[contents may be stored based on the condition of user-selected category, para. 40, or triggered on payment, para 41].**

22. Regarding claim 12, Russo discloses a device wherein the storage control portion conducts one of recording a condition for storing the partial content provided by the user and outputting the condition to outside thereof **[transmission device receives subscription commands, para. 42, 43; condition of whether content has been purchased is output to the program provider, outside the home network, paras. 41-43].**

23. Regarding claim 13, Russo discloses a device wherein the condition for storing the content is a specific category of content **[category search, para. 40].**

24. Regarding claim 14, Russo discloses a device wherein the storage control portion judges whether or not each content is a pay-per-view content, and wherein the storage control portion controls the restoring part so that the restoring part reads out a preview of the content as a partial content and outputs the preview to the storage part when the content is judged as a pay-per-view content **[system determines whether content is a preview or pay-per-view and outputs/stores accordingly, paras 44-46]**.

25. Regarding claim 15, Russo discloses a device wherein the control part performs the following steps when a command for subscribing a specific pay-per-view content from a user is received;

detecting at when the subscription command is received whether or not a lapsed time from the beginning of the pay-per-view content which is received and output with the receiving part is longer than a time period for playback of preview of the pay-per-view content stored in the storage part **[para. 44]**, and

storing the pay-per-view content into a temporary storage part capable of storing a content having a longer playback period than the lapsed time and playback, and playback the pay-per-view content stored in the temporary storage part while playback the preview stored in the storage part when the time period for playback is longer than the elapsed time **[both the preview period and the content itself is played back from storage, paras. 44-46]**.

26. Regarding claim 16, Russo discloses a device wherein the control part performs the following steps when a command for subscribing a specific pay-per-view content from a user who views preview of the pay-per-view content is received;

detecting at when the subscription command is received whether or not the pay-per-view content is currently transmitted in accordance with information on programs received **[paras. 42, 44]**,

storing the subscription command of the pa-per-view content when no transmission is currently conducted, and determining whether or not the pay-per-view content corresponding to the stored subscription command is in an on-air schedule whenever information on programs are updated, and outputting a display which shows that the pay-per-view content will be on-aired when the pay-per-view content is in the schedule **[controller utilizes future schedule information and determines whether content is available for download or preview, para 40]**.

27. Regarding claim 17, Russo discloses a device, the device further comprising a communication part for communicating with a content provider's device via a communication line **[tuner 104, Fig. 2]**, wherein the control part performs the following steps when a command for subscribing a specific pay-per-view content from a user who views preview of the pay-per-view content is received;

detecting at when the subscription command is received whether or not the pay-per-view content is currently transmitted in accordance with information on programs received **[paras. 42, 44]**, and

transmitting by communication part the subscription command of the pay-per-view content to the content provider's device when no transmission is currently conducted **[transmission device receives subscription commands, para. 42, 43]**;

28. Regarding claim 18, Russo discloses a device wherein the control part outputs an indication by which a content of its partial contents being stored in the storage part can be distinguished from other contents during restoration of information on programs which is received **[controller distinguishes between pay-per-view and preview contents, paras. 44, 46; supplemental information is also distinguished, para. 37]**.

29. Regarding claims 19 and 20, Russo discloses a device wherein the storage control portion deletes a partial content stored in the storage part in order of longer duration of storing to store a new partial content when the new partial content can not be stored in the storage part **[stored content may be deleted to free up space, para. 45; also see para. 21 for controller storage management and erasure]**.

30. Regarding claim 21, Russo discloses a device wherein the storage control portion deletes a partial content which has been playback to store a new partial content when the new partial content can not be stored in the storage part **[stored content may**

**be deleted to free up space, para. 45; also see para. 21 for controller storage management and erasure].**

31. Regarding claim 22, Russo discloses a device wherein the storage control portion deletes a partial content corresponding to a content which has been playback according to a command from a user to store a new partial content when the new partial content can not be stored in the storage part **[stored content may be deleted to free up space, para. 45; also see para. 21 for controller storage management and erasure].**

32. Regarding claim 23, Russo discloses a device wherein the control part judges whether or not a content corresponding to a partial content can currently be received while the partial content stored is playback, and stores the content in a temporary basis when the content can be received **[controller 10 performs storage management and provides for the periodic erasure of programs, para. 21].**

33. Regarding claim 24, Russo discloses a device wherein the control part compensates a missing part of a content currently received with the content temporary stored when a subscription command for the content corresponding to the partial content is received while the partial content stored is playback **[system keeps track of exactly where operator left off (paras. 25, 45) and may store and play programs or**

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**parts of programs automatically based on what has been previously viewed (para. 40)].**

34. Regarding claim 25, Russo discloses a device wherein the control part compensates the missing part of the content currently received further using the stored partial content **[system keeps track of exactly where operator left off (paras. 25, 45) and may store and play programs or parts of programs automatically based on what has been previously viewed (para. 40)].**

35. Regarding claim 27, Russo discloses a device wherein the partial content is preview of a pay-per-view content **[para. 44].**

36. Regarding claim 28, Russo discloses a device wherein the storage control portion of the control part selectively stores preview of a pre-viewable pay-per-view content out of a content transmitted **[system selectively stores content based on explicit or implied user preferences, para. 40].**

37. Regarding claim 29, Russo discloses a device wherein the storage control portion judges whether or not the content is a pre-viewable pay-per-view content in accordance both of description of received ECM and a fact that a valid key is send back

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as a result of transmitting the ECM to a key reproduction part **[system transmit and receive supplemental storage information, including authorization keys, para. 37]**.

38. Regarding claim 30, Russo discloses a device wherein the storage control portion creates a list in which pay-per-view contents that are pre-viewable are listed, and stores the preview of the pre-viewable pay-per-view contents in accordance with the list **[paras. 40, 44]**.

Regarding claim 38, Russo discloses a device according to claim 37, wherein the control part further controls so that history of command for viewing the stored partial content provided by the user is one of recorded and output to outside thereof **[system will list pre-recorded contents and viewing history, para. 25; user may review titles of stored content, para. 44; selection history is outputted to program provider, para. 44]**.

Regarding claim 39, Russo discloses a device according to claim 37, wherein the control part further controls so that either a command for storing the stored content or the history of command for viewing the stored partial content provided by the user is one of recorded and output to outside thereof **[system will list pre-recorded contents and viewing history, para. 25; user may review titles of stored content, para. 44; selection history is outputted to program provider, para. 44]**.



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Regarding claim 40, Russo discloses a device according to claim 36, wherein the control part transmits to a transmit device either the history or the condition both once stored **[system will list pre-recorded contents and viewing history, para. 25; user may review titles of stored content, para. 44; selection history is outputted to program provider, para. 44]**.

### ***Claim Rejections - 35 USC § 103***

39. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Russo in view of Yurt et al., U.S. Patent No. 5,132,992. Russo shows compression and decompression but does explicitly show the use of a buffer. Yurt does teach a buffering process that includes a combination of buffering and non-buffering that compensates for real-time or later viewing **[cols. 4-5, 64-9]**. Yurt also describes realigning video data and user addressing of particular content portions **[col. 8, 20-23]**. Moreover, Russo suggests that well-known memory technology may be used to facilitate electronic transmission of data **[para. 32]**. Therefore it would have been obvious to one of

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ordinary skill in the art to use a buffer as part of the compression, storage, and playback system of Russo in order to match data rates between system components.

40. Claims 31-35 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Russo as cited above.

41. Regarding claims 31, 35, and 42, Russo does not explicitly disclose a display of available capacity for storage. However, Russo strongly suggests the possibility, stating that the user “energizes the apparatus and an accompanying television or monitor, and uses the remote...to review those programs previously recorded onto the high-capacity medium” **[para. 44]**. Thus, given that the user can view a database of currently stored programs, it would have been obvious to one skilled in the art to include the total or current available capacity on the display, so the user may decide to download more content, erase content, or some combination thereof. Generally speaking, it is advantageous to display as much basic information to the user as possible.

42. With respect to claim 35, it has an additional limitation of storing a summarized form of content based on memory capacity. Russo discloses controller 10 which performs storage management, including keeping track of what has been stored and deleting content to maintain memory space. **[paras. 21 and 45]**. At the point where content currently being downloaded exceeds the available memory, the content will exist in a summarized (i.e. incomplete) form.

43. Regarding claim 32, Russo discloses a device according to claim 31, wherein the storage control portion previously records the capacity of each content during storage of the content, and acquires the capacity of each content in accordance with description of the record **[content may be automatically erased based on current memory capacity, para. 45]**.

44. Regarding claim 33, Russo discloses a device wherein the storage control portion outputs another content capable of being stored as a candidate for storage in accordance with capacity of each of the content when it is judged that storage for the content to be stored accompanies a trouble **[controller 10 performs storage management, including keeping track of what has been stored and deleting content to maintain memory space, paras. 21 and 45]**.

45. Regarding claim 34, Russo does not specifically teach choosing a compression rate based on storage availability. However, Russo does teach that the compression may advantageously be provided to most efficiently utilize the storage unit 110, and also that compression algorithms may be programmable and updated as necessary **[para. 33]**. Thus, given Russo's suggestion that compression may be adjusted, it would have been obvious to one of ordinary skill to adjust compression rates when memory capacity varies, in order to in order to balance between complex compression (which is processor- and bandwidth-intensive) and available memory space.

### ***Conclusion***


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Billock et al., US 5,619,249; Schumacher, US 6,757,907; Jerding et al., US 2006/0020982; Dunn et al., US 5,861,906; Klosterman, US 6,453,471.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy R. Newlin whose telephone number is (571) 270-3015. The examiner can normally be reached on M-F 9-6 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TRN



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